# 11





## ENTERED

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/960,631A

DATE: 03/29/2002 TIME: 13:28:15

Input Set : A:\266\_171.ST25.txt

```
3 <110> APPLICANT: MIROCHNITCHENKO, Oleg
         WEI, Jiang
 4
 5
         INOUYE, Masayori
 7 <120> TITLE OF INVENTION: SOLUBLE ISCHEMIA ACTIVATED PROTEIN
 9 <130> FILE REFERENCE: 266/171
                                                             RECEIVED
11 <140> CURRENT APPLICATION NUMBER: US 09/960,631A
12 <141> CURRENT FILING DATE: 2001-09-20
                                                              APR 1 1 2002
14 <150> PRIOR APPLICATION NUMBER: US 60/233,819
15 <151> PRIOR FILING DATE: 2000-09-20
17 <160> NUMBER OF SEQ ID NOS: 8
                                                         TECH CENTER 1600/2900
19 <170> SOFTWARE: PatentIn version 3.1
21 <210> SEO ID NO: 1
22 <211> LENGTH: 840
23 <212> TYPE: DNA
24 <213> ORGANISM: Homo sapiens
26 <400> SEQUENCE: 1
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29 agegagggge etgetggete eeggageggt egeetettee geeegeegag teeegeteeg
                                                                         120
                                                                         180
31 geggeeeeg gegeeegget gttgeggete eeggggageg gggeegtgea ggeegegage
33 coggagogog coggotggac ogaggogotg ogggoogoog tggoogagot gogogooggo
                                                                         240
35 geogtggtgg cegtececae egataegetg taeggeetgg cetgegegge gagetgeteg
                                                                         300
37 geggetetge gegetgtgta cegeetcaag ggtegeageg aggeeaagee tetggeegta
                                                                         360
39 tgcctcggcc gcgtggccga cgtctacaga tactgccgtg tgagagtacc tgaggggctc
                                                                         420
41 ctgaaagacc tactgccagg accagtgacc ctggtgatgg aacgctcgga ggagctcaac
                                                                         480
43 aaggacetaa accettttae geetettgta ggeattegga tteetgatea tgettttatg
                                                                         540
45 caagacttgg ctcagatgtt tgagggtccg cttgctctca ctagtgccaa cctcagctcc
                                                                         600
                                                                         660
47 caggccagtt ctctgaatgt cgaggagttc caggatctct ggcctcagtt gtccttggtt
49 attgatgggg gacaaattgg ggatggccag agccccgagt gtcgccttgg ctcaactgtg
                                                                         720
51 gttgatttgt ctgtgcccgg aaagtttggc atcattcgtc caggctgtgc cctggaaagt
                                                                         780
                                                                         840
53 actacagoca tootocaaca gaagtacgga otgotocoot cacatgogto otacotgtga
56 <210> SEO ID NO: 2
57 <211> LENGTH: 279
58 <212> TYPE: PRT
59 <213> ORGANISM: Homo sapiens
61 <400> SEOUENCE: 2
63 Met Ser Pro Ala Arg Arg Cys Arg Gly Met Arg Ala Ala Val Ala Ala
                                       10
67 Ser Val Gly Leu Ser Glu Gly Pro Ala Gly Ser Arg Ser Gly Arg Leu
               20
                                   25
71 Phe Arg Pro Pro Ser Pro Ala Pro Ala Pro Gly Ala Arg Leu Leu
                               40
75 Arg Leu Pro Gly Ser Gly Ala Val Gln Ala Ala Ser Pro Glu Arg Ala
76
```

Input Set : A:\266\_171.ST25.txt

```
79 Gly Tyr Thr Glu Ala Leu Arg Ala Ala Val Ala Glu Leu Arg Ala Gly
     80 65
                            70
     83 Ala Val Val Ala Val Pro Thr Asp Thr Leu Tyr Gly Leu Ala Cys Ala
     87 Ala Ser Cys Ser Ala Ala Leu Arg Ala Val Tyr Arg Leu Lys Gly Arg
                    100
                                        105
     91 Ser Glu Ala Lys Pro Leu Ala Val Cys Leu Gly Arg Val Ala Asp Val
                115
                                    120
     95 Tyr Arg Tyr Cys Arg Val Arg Val Pro Glu Gly Leu Leu Lys Asp Leu
                                135
                                                     140
     99 Leu Pro Gly Pro Val Thr Leu Val Met Glu Arg Ser Glu Glu Leu Asn
     100 145
                             150
                                                  155
     103 Lys Asp Leu Asn Pro Phe Thr Pro Leu Val Gly Ile Arg Ile Pro Asp
     107 His Ala Phe Met Gln Asp Leu Ala Gln Met Phe Glu Gly Pro Leu Ala
                                          185
                                                              190
     108
                     180
     111 Leu Thr Ser Ala Asn Leu Ser Ser Gln Ala Ser Ser Leu Asn Val Glu
                                      200
    115 Glu Phe Gln Asp Leu Tyr Pro Gln Leu Ser Leu Val Ile Asp Gly Gly
     116
                                 215
                                                      220
     119 Gln Ile Gly Asp Gly Gln Ser Pro Glu Cys Arg Leu Gly Ser Thr Val
                             230
                                                  235
    120 225
    123 Val Asp Leu Ser Val Pro Gly Lys Phe Gly Ile Ile Arg Pro Gly Cys
                                              250
                         245
    127 Ala Leu Glu Ser Thr Thr Ala Ile Leu Gln Gln Lys Tyr Gly Leu Leu
                                          265
                                                              270
    128
                     260 -
    131 Pro Ser His Ala Ser Tyr Leu
    132
                 275
    135 <210> SEQ ID NO: 3
    136 <211> LENGTH: 1387
     137 <212> TYPE: DNA
     138 <213> ORGANISM: Homo sapiens
    140 <220> FEATURE:
     141 <221> NAME/KEY: misc_feature
     142 <222> LOCATION: (1)..(1387)
     143 <223> OTHER INFORMATION: The letter "n" stands for a substitution base.
     146 <400> SEQUENCE: 3
                                                                                60
W--> 147 nattteggea etagggaaeg eteggaggag eteaacaagg acetaaaeee ttttaegeet
     149 cttgtaggca ttcggattcc tgatcatgct tttatgcaag acttggctca gatgtttgag
                                                                               120
    151 ggtccgcttg ctctcactag tgccaacctc agctcccagg ccagttctct gaatgtcgag
                                                                               180
    153 gaqttccaqq atctctqqcc tcagttqtcc ttggttattg atgggggaca aattggggat
                                                                               240
                                                                               300
    155 gqccagaqcc ccqaqtgtcg ccttggctca actgtggttg atttgtctgt gcccggaaag
    157 tttggcatca ttcgtccagg gtgtgcctgg gaaagtacta cagccatcct ccaacagaag
                                                                               360
    159 tacggactgc tcccctcaca tgcgtcctac ctgtgaaact ctgggaagca ggaaggccca
                                                                               420
    161 agacctggtg ctggatacta tgtgtctgtc cactgacgac tgtcaaggcc tcatttgcag
                                                                               480
    163 aggccaccgg agctagggca ctagcctgac ttttaaggca gtgtgtcttt ctgagcactg
                                                                               540
    165 tagaccaage cettggaget getggtttag cettgeacet ggggaaagga tgtatttatt
                                                                               600
                                                                               660
    167 tgtattttca tatatcagcc aaaagctgaa tggaaaagtt aagaacattc ctaggtggcc
                                                                               720
    169 ttattctaat aagtttcttc tgtctgtttt gtttttcaat tgaaaagtaa ttaaataaca
```

Input Set : A:\266\_171.ST25.txt

|    |     |                   |             |          |       |         |      |      |       |     |       |        | 700  |
|----|-----|-------------------|-------------|----------|-------|---------|------|------|-------|-----|-------|--------|------|
|    |     | gatttagaat        |             | •        |       |         |      | -    |       |     |       |        | 780  |
| M> |     | ccnagaagtg        |             |          |       |         |      |      |       |     |       |        | 840  |
|    |     | taatcccaac        |             |          |       |         |      |      |       |     |       |        | 900  |
|    |     | cagcctgggc        |             |          |       |         |      |      |       |     |       |        | 960  |
|    |     | tgaccaaagg        |             | _        |       |         |      |      |       |     |       |        | 1020 |
|    |     | ctcttccctc        |             |          |       |         |      |      |       |     |       |        | 1080 |
|    |     | gcagtctttt        |             |          |       |         |      |      |       |     |       |        | 1140 |
| M> |     | gaagaatatt        |             |          |       |         |      |      |       |     |       |        | 1200 |
|    |     | attcataaaa        |             |          |       |         |      |      |       |     |       |        | 1260 |
|    |     | tccgcagcct        |             |          |       |         |      |      |       |     |       |        | 1320 |
| M> | 191 | tttgaacntg        | tttttcntt   | nagana   | atnct | gnnatt  | aaac | atat | ttgt  | :na | atggı | naaaaa | 1380 |
|    |     | aaaaaa            |             |          |       |         |      |      |       |     |       |        | 1387 |
|    | 196 | <210> SEQ I       | ID NO: 4    |          |       |         |      |      |       |     |       |        |      |
|    | 197 | <211> LENGTH: 930 |             |          |       |         |      |      |       |     |       |        |      |
|    | 198 | <212> TYPE:       | DNA         |          |       |         |      |      |       |     |       |        |      |
|    | 199 | <213> ORGAN       | NISM: Mus n | nusculus | S     |         |      |      |       |     |       |        |      |
|    | 201 | <400> SEQUE       | ENCE: 4     |          |       |         |      |      |       |     |       |        |      |
|    | 202 | atgtctacgg        | cgcgtccgt   | g cgcgg  | ggctg | agggcc  | gccg | tggc | egge  | egg | catg  | gggttg | 60   |
|    | 204 | agcgacgggc        | cggctagtt   | tggcc    | gcggc | tgccgc  | ctcc | tact | ccct  | cc  | tgago | cccgct | 120  |
|    | 206 | ccggcgctgc        | cgggggccc   | g gctgct | tgcgg | cttccg  | gaga | gcga | agcco | gt  | ggaag | gccgcg | 180  |
|    | 208 | agccccgagc        | gcgccggct   | g gaccga | aggcg | ctgcgg  | gccg | ccgt | ggc   | cga | gctg  | egegee | 240  |
|    | 210 | ggcgccgtgg        | tggcggtcc   | gaccga   | acacg | ctctac  | ggcc | tggc | cctg  | ctc | ggcga | agcagc | 300  |
|    | 212 | tcggcggccc        | tgagttgcg   | gtacco   | gcctc | aaaggo  | cgca | gcga | iggco | caa | gccg  | ctggcc | 360  |
|    |     | gtgtgcctgg        |             |          |       |         |      |      |       |     |       |        | 420  |
|    | 216 | ctcctggaag        | acctgttcc   | aggee    | ctgtg | accctg  | gtga | tgga | agcgo | ctc | cgag  | gagete | 480  |
|    |     | aacaaagacc        |             |          |       |         |      |      |       |     |       |        | 540  |
|    | 220 | atgctggact        | tggcccagat  | gtttg    | gggga | ccactt  | gcac | tcac | tagt  | .gc | caaco | ctcagc | 600  |
|    | 222 | tcccaggcca        | gttctctgag  | g tgttga | aggag | ttccaa  | gacc | tctg | gcct  | ca  | tttgt | ccctt  | 660  |
|    |     | gtcattgatg        |             |          |       |         |      |      |       |     |       |        | 720  |
|    |     | gtggttgact        |             |          |       |         |      |      |       |     |       |        | 780  |
|    |     | aacactacat        |             |          |       |         |      |      |       |     |       |        | 840  |
|    | 230 | tgaaacttgg        | gaggacccaa  | ggacat   | tgctg | gatact  | atgt | gtct | gcta  | act | ggato | gcaaag | 900  |
|    |     | cctcattgcc        |             |          |       | _       | _    | _    | -     |     |       | •      | 930  |
|    |     | <210> SEQ I       |             |          | _     |         |      |      |       |     |       |        |      |
|    | 236 | <211> LENGT       | TH: 280     |          |       |         | -    |      |       |     |       |        |      |
|    | 237 | <212> TYPE:       | PRT         |          |       |         |      |      |       |     |       |        |      |
|    | 238 | <213> ORGAN       | NISM: Mus I | nusculus | S     |         |      |      |       |     |       |        |      |
|    | 240 | <400> SEQUE       | ENCE: 5     |          |       |         |      |      |       |     |       |        |      |
|    | 242 | Met Ser Thr       | Ala Arg 1   | ro Cys   | Ala   | Gly Leu | Arg  | Ala  | Ala   | Val | Ala   | Ala    |      |
|    | 243 | 1                 | 5           |          |       | 10      |      |      |       |     | 15    |        |      |
|    | 246 | Gly Met Gly       | Leu Ser     | Sp Gly   | Pro A | Ala Ser | Ser  | Gly  | Arg   | Gly | Cys   | Arg    |      |
|    | 247 | _                 | 20          | _        | :     | 25      |      |      |       | 30  |       |        |      |
|    |     | Leu Leu Leu       | Pro Pro (   | Slu Pro  | Ala   | Pro Ala | Leu  | Pro  | Gly   | Ala | Arg   | Leu    |      |
|    | 251 | 35                |             |          | 40    |         |      |      | 45    |     |       |        |      |
|    |     | Leu Arg Leu       | Pro Glu s   | Ser Glu  | Pro ' | Val Glu | Ala  | Ala  | Ser   | Pro | Glu   | Arg    |      |
|    | 255 | 50                |             | 55       |       |         |      | 60   |       |     |       |        |      |
|    |     | Ala Gly Tyr       | Thr Glu A   | la Leu   | Arg A | Ala Ala | Val  | Ala  | Glu   | Leu | Arg   | Ala    |      |
|    | 259 |                   |             | 70       | -     |         | 75   |      |       |     | =     | 80     |      |
|    |     | Gly Ala Val       | Val Ala V   | al Pro   | Thr A | Asp Thr | Leu  | Tyr  | Gly   | Leu | Ala   | Cys    |      |
|    |     | -                 |             |          |       | _       |      | _    | _     |     |       | -      |      |

Input Set : A:\266\_171.ST25.txt

```
263
                    85
                                         90
266 Ser Ala Ser Ser Ser Ala Ala Leu Ser Cys Val Tyr Arg Leu Lys Gly
                                     105
270 Arg Ser Glu Ala Lys Pro Leu Ala Val Cys Leu Gly Arg Val Ala Asp
                                 120
            115
274 Val Tyr Arg Tyr Cys Gln Val Arg Val Pro Arg Glu Leu Leu Glu Asp
        130
                            135
275
278 Leu Phe Pro Gly Pro Val Thr Leu Val Met Glu Arg Ser Glu Glu Leu
                        150
                                             155
282 Asn Lys Asp Leu Asn Pro Phe Thr Arg Leu Val Gly Ile Arg Ile Pro
                    165
                                         170
286 Asp His Ala Phe Met Leu Asp Leu Ala Gln Met Phe Gly Gly Pro Leu
287
                                     185
                                                         190
290 Ala Leu Thr Ser Ala Asn Leu Ser Ser Gln Ala Ser Ser Leu Ser Val
                                                     205
            195
                                 200
294 Glu Glu Phe Gln Asp Leu Tyr Pro His Leu Ser Leu Val Ile Asp Gly
                            215
298 Gly Pro Ile Gly Asp Ser Gln Ser Pro Glu Cys Arg Leu Gly Ser Thr
299 225
                        230
                                             235
302 Val Val Asp Leu Ser Val Pro Gly Lys Phe Gly Ile Ile Arg Pro Gly
                    245
                                        - 250
306 Cys Ala Leu Glu Asn Thr Thr Ser Ile Leu Gln Gln Lys Tyr Gly Leu
                260
                                     265
310 Leu Pro Ser Gln Gly Ser Cys Ser
           275
314 <210> SEQ ID NO: 6
315 <211> LENGTH: 702
316 <212> TYPE: DNA
317 <213> ORGANISM: Bos taurus
319 <400> SEQUENCE: 6
320 ggccqtcccc aacgatacgc tgtacgggct ggcctgctcg gcgagctgct cggaagcact
                                                                            60
322 gggcgccgtg taccgtgtca agggccgcag cgagaccaag ccgctggccg tatgcctggg
                                                                           120
324 ccgcgtggcc gacgtctaca ggtactgcca cgtgagagta cctgaggggc tcctgaagga
                                                                           180
326 cctgttgcca ggaccagtga ccctggtgat ggaacgctca gaggagctca acaaggacct
                                                                           240
                                                                           300
328 gaateettte acteetettg taggeateeg gatteetgae çaegeettea tgeaggaett
330 ggtccagatg tttggggggc cactcgctct caccagtgcc aacctcagct cccagtccag
                                                                           360
332 ctctctgaat gttgaggaat tccaggacct gtggcctcac ttgtccctga tcattggtgg
                                                                           420
                                                                           480
334 gggaccaatt ggggacggcc agagcccaga gtgtcgacta ggctcaactg tggttgactt
336 gtctgtgcct ggaaagtttg gcatcattcg tcctggttgt gcccttgaaa gtacttcagc
                                                                           540
338 catcctccaq qaqtatqqqc tqctcccctc acatgqatcc tqctqqtqac actctggagg
                                                                           600
340 agggaaggcc caagggctgg tgctggacac tatgtgtccg actgctggtg gttggcaagg
                                                                           660
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342 cctcatttgc agaggctgct agggctacag tgttagtagt ct
345 <210> SEQ ID NO: 7
346 <211> LENGTH: 126
347 <212> TYPE: PRT
348 <213> ORGANISM: Bos taurus
350 <400> SEOUENCE: 7
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353 1
                                         10
```

Input Set : A:\266\_171.ST25.txt

| 357  | Leu  | Val   | Gly  | Ile<br>20  | Àrg  | Ile  | Pro   | Asp   | His<br>25   | Ala  | Phe  | Met   | Gln   | Asp<br>30  | Leu   | Val  |  |
|--|--|---|--|--|--|--|---|---|---|--|--|---|---|--|---|--|--|
|  | Gln  | Met   | Phe<br>35  | Gly  | Gly  | Pro  | Leu   | Ala<br>40   | Leu   | Thr  | Ser  | Ala   | Asn<br>45   | Leu  | Ser   | Ser  |  |
| 364<br>365   | Gln  | Ser<br>50   | Ser  | Ser  | Leu  | Asn  | Val<br>55   | Glu   | Glu   | Phe  | Gln  | Asp<br>60   | Leu   | Trp  | Pro   | His  |  |
| 369  |  |   |  |  |  | 70   | _   | _   |   |  | 75   | _   |   |  |   | 80   |  |
| 373  | Glu  | . –   |  |  | 85   |  |   |   |   | 90   |  |   |   |  | 95  |  |  |
| 377  | Phe  | -   |  | 100  | _  |  | _   | _   | 105   |  |  |   |   | 110  | Ala   | Ile  |  |
| 381  |  |   | 115  | -  | -  | Leu  | Leu   | Pro<br>120  | Ser   | His  | Gly  | Ser   | Cys<br>125  | Trp  |   |  |  |
|  | <210   |   |  |  |  |  |   |   |   |  |  |   |   |  |   |  |  |
|  | <213   |   |  |  | 11   |  |   |   |   |  |  |   |   |  |   |  |  |
|  | 386 <212> TYPE: DNA<br>387 <213> ORGANISM: Rattus novartis                           |   |  |  |  |  |   |   |   |  |  |   |   |  |   |  |  |
|  | <221   |   |  |  | Naci   | _us i  | iovai   |   |   |  |  |   |   |  |   |  |  |
|  | <222   |   |  |  | misa   | r fea  | ature   | چ   |   |  |  |   |   |  |   |  |  |
|  | <222   |   |  |  |  |  |   |   |   |  |  |   |   |  |   |  |  |
|  |  |   |  |  |  |  |   |   | ter   | " Z "  | star   | nds i   | for s   | seque  | ence  | hybridia   | ing.   |
|  | <400   |   |  |  |  |  |   |   |   |  |  |   |   |  |   |  |  |
| 206  | ~-+  |   |  | recet  | cgagt  | ca to  | ratet   | + ~~  |   |  |  |   |   |  |   |  |  |
| 330  | yalı   | ag tga  | aaa q  | ,  |  | -,   | -9 CC (   | LLYY  | CCT   | cacto  | gtgg   | ttga  | actto   | gtc 1  | cgcgo   | cctgga   | 60   |
| 398  | aagt   | tttg  | gca f  | ttati  | teget  | tc ag  | gcto  | gtgcc   | ctg   | ggaaa  | aata   | ctac  | cage  | cat o  | cctc  | cagggg   | 120  |
| 398<br>400   | aagt<br>aaat   | tttgg<br>tatgg  | gca i<br>ggc i   | ttati<br>tgcto   | teget<br>ceett   | tc ac  | ggctg<br>caggg  | gtgcc<br>ggtcc  | c ctg   | ggaaa<br>ttcat   | aata<br>.gaa   | ctac<br>acti  | cagco<br>cggga  | cat o  | cctco   | cagggg<br>aagaac   | 120<br>180   |
| 398<br>400<br>402  | aagt<br>aaat<br>cat  | tttgg<br>tatgg<br>gctgg   | gca i<br>ggc i<br>gat a  | ttati<br>tgcto<br>actai  | tagat<br>caatt<br>tgtgt  | tc actor to ta   | ggctg<br>caggg<br>actac   | gtgco<br>ggtco<br>caggt   | ctg<br>tgt  | ggaaa<br>tcat<br>gcaaa   | aata<br>Igaa<br>Igcc   | ctad<br>acti<br>tcai  | cagco<br>Lggga<br>Ltggo   | cat o<br>agg a<br>ctg a  | cctco<br>accca<br>aggtt   | cagggg<br>aagaac<br>ccctgg   | 120<br>180<br>240  |
| 398<br>400<br>402<br>404   | aagt<br>aaat<br>catq<br>agct   | tttgg<br>tatgg<br>gctgg<br>tacat  | gca i<br>ggc i<br>gat a<br>tct o   | ttati<br>tgcto<br>actai<br>gtago   | teget<br>cectt<br>tgtgt<br>cctag   | te ag<br>te ac<br>te ta<br>ge tt   | ggetg<br>cagge<br>actac<br>tttta  | gtgco<br>ggtco<br>caggt<br>aggca  | c ctg<br>c tgt<br>c tgg<br>a gtg  | ggaaa<br>tcat<br>gcaaa<br>gtcct  | aata<br>Igaa<br>agcc<br>Itgg   | ctad<br>acti<br>tcat<br>ctct  | agco<br>ggga<br>tgga<br>gaat  | eat or agg a company of the company  | cctco<br>accca<br>aggtt<br>tgtag  | cagggg<br>aagaac<br>cctgg<br>ggccag  | 120<br>180<br>240<br>300   |
| 398<br>400<br>402<br>404<br>406  | aagt<br>aaat<br>catg<br>agct   | tttgg<br>tatgg<br>gctgg<br>tacat<br>gaago                                     | gea fige figer and the second  | ttati<br>tgcto<br>actai<br>gtago   | teget<br>eeett<br>tgtgt<br>eetag<br>ttgag  | te ag<br>te ac<br>te ta<br>ge tt<br>ge et  | ggetg<br>eaggg<br>actac<br>tttta<br>ttgca   | gtgco<br>ggtco<br>caggt<br>aggca<br>accca   | c ctg<br>c tgt<br>c tgg<br>a gtg<br>a ggg   | ggaaa<br>tcat<br>gcaaa<br>gtcct<br>ggaag   | aata<br>gaa<br>agcc<br>tgg<br>ggtt   | ctad<br>acti<br>tcat<br>ctct<br>atai  | eaged<br>eggga<br>etgga<br>egaat  | eat or agg a store to the store | ceted<br>accea<br>aggtt<br>tgtag<br>tgtag   | cagggg<br>aagaac<br>ccctgg<br>ggccag<br>gattca   | 120<br>180<br>240<br>300<br>360  |
| 398<br>400<br>402<br>404<br>406<br>408   | aagt<br>aaat<br>cate<br>agct<br>ccae   | tttgg<br>tatgg<br>gctgg<br>tacat<br>gaago<br>gtcaa                            | gea fige figer and the second  | ttati<br>tgcto<br>actai<br>gtago<br>cgggi  | teget<br>eeett<br>tgtgt<br>eetag<br>ttgag<br>atgga                                   | te ag<br>te ta<br>te ta<br>ge tt<br>ge et  | ggete<br>eagge<br>actac<br>tttta<br>ttgca<br>gaaga                                    | gtgco<br>ggtco<br>caggt<br>aggca<br>accca<br>aacat                                      | c ctg t tgt t tgg t gtg t ggg t tct   | ggaaa<br>tcat<br>gcaaa<br>gtcct<br>ggaag<br>taga                                     | aata<br>gaa<br>agcc<br>tgg<br>ggtt<br>agtg   | ctad<br>acti<br>tcat<br>ctct<br>atat<br>acci  | eaged<br>eggga<br>etgga<br>egaat<br>ettat   | eat or agg a compart of the compart  | cctco<br>accca<br>aggtt<br>tgtao<br>tgtao<br>tttaa                                      | cagggg<br>aagaac<br>ccctgg<br>ggccag<br>gattca<br>agtgcc   | 120<br>180<br>240<br>300<br>360<br>420   |
| 398<br>400<br>402<br>404<br>406<br>408<br>410                                    | aagt<br>aaat<br>catg<br>agct<br>ccag<br>tgtg   | tttgg<br>tatgg<br>gctgg<br>tacat<br>gaago<br>gtcaa                            | gea fige figer and the second  | ttati<br>tgcto<br>actai<br>gtago<br>cgggi<br>cagao<br>caaco                                  | teget<br>ceett<br>tgtgt<br>cetag<br>ttgag<br>atgga                                   | to age to the good | ggetg<br>eagge<br>actac<br>tttta<br>ttgca<br>gaaga<br>ataag                           | gtgco<br>ggtco<br>caggt<br>aggca<br>accca<br>accat<br>gttaa                             | c ctg c tgt c tgg a gtg a ggg c tct a gta   | ggaaa<br>tcat<br>gcaaa<br>gtcct<br>ggaag<br>taga<br>taga                             | aata<br>gaa<br>agcc<br>tgg<br>ggtt<br>agtg   | ctadacti<br>tcat<br>ctct<br>atat<br>acct<br>tgca  | eaged<br>eggga<br>egaat<br>ettac<br>etatt<br>agaat                                      | eat of agg a control of the control  | ceted<br>accea<br>aggtt<br>tgtag<br>tgtag<br>tttaa<br>gaatg                             | cagggg<br>aagaac<br>ccctgg<br>ggccag<br>gattca<br>agtgcc<br>gcatta   | 120<br>180<br>240<br>300<br>360<br>420<br>480                                    |
| 398<br>400<br>402<br>404<br>406<br>408<br>410<br>412                             | aagt<br>aaat<br>catc<br>agct<br>ccac<br>tgtc<br>cctc                                 | tttgg<br>tatgg<br>getgg<br>tacat<br>gaago<br>gtcao<br>getgo                   | yea fi<br>yge fi<br>yat a<br>tet g<br>ett d<br>eec d<br>ett a  | ttati<br>tgcto<br>actai<br>gtago<br>cgggi<br>cagao<br>caaco<br>actgo                         | teget<br>ceett<br>tgtgt<br>cetag<br>ttgag<br>cetge<br>gtgaa                          | te age tage tage tage tage tage tage tag   | ggete<br>agge<br>actac<br>tttta<br>ttgca<br>gaaga<br>gtgaa                            | gtged<br>ggted<br>eaggt<br>agged<br>acced<br>accat<br>gttad<br>aattt                    | e cto c tgt c tgg a ggg a ggg c tct a gt c ggt  | ggaaa<br>teat<br>geaaa<br>gteet<br>ggaag<br>taga<br>taga<br>t                        | aata<br>gaa.<br>agcc<br>tgg<br>ggtt<br>agtg<br>cgac                                  | ctadacti<br>tcat<br>ctct<br>atat<br>acct<br>tgca  | eaged<br>Eggga<br>Egaat<br>Etatt<br>Etatt<br>agaat                                      | eat of a grant of a gr | ceted<br>accea<br>aggtt<br>tgtag<br>tgtag<br>tttaa<br>gaatg                             | cagggg<br>aagaac<br>ccctgg<br>ggccag<br>gattca<br>agtgcc<br>gcatta<br>aatgca                               | 120<br>180<br>240<br>300<br>360<br>420<br>480<br>540                             |
| 398<br>400<br>402<br>404<br>406<br>408<br>410<br>412<br>414                      | aagt<br>aaat<br>agct<br>ccag<br>tgtg<br>cctd<br>agag                                 | tttgg tatgg tacat gaago gtcae ctcac gctga                                     | yea fige figer and the second control of the | ttati<br>tgcto<br>actai<br>gtago<br>cagas<br>caaco<br>actgo<br>ctcao                         | togot<br>coctt<br>tgtgt<br>cotac<br>ttgac<br>ttgac<br>gtgac<br>gtgac                 | to age to to the | ggete<br>cagge<br>actac<br>tttta<br>ttgca<br>gaaga<br>ataae<br>gtgaa                  | gtgcc<br>ggtcc<br>caggt<br>aggca<br>accca<br>accat<br>gttaa<br>gcaaa                    | c cto c tgt c tgg a gto a ggo a tct a gto a ggt a ggt a gto                               | ggaaa<br>ctcat<br>gcaaa<br>gtcct<br>ggaag<br>ctaga<br>ctaga<br>ctag                  | ata  gaa  igcc  tgg  gtt  igtg  cgac  iaac  jagc                                     | ctac<br>acti<br>tcat<br>ctct<br>atat<br>acci<br>tgca<br>cage  | caged<br>caggga<br>cagaat<br>catact<br>cagaat<br>cagaat                                 | cat of a control of the control of t | cctcc<br>accca<br>aggtt<br>tgtac<br>tgtac<br>tttaa<br>gaatc<br>cacta<br>gcttt           | cagggg<br>aagaac<br>ccctgg<br>ggccag<br>gattca<br>agtgcc<br>gcatta<br>aatgca<br>cctggg                     | 120<br>180<br>240<br>300<br>360<br>420<br>480<br>540<br>600                      |
| 398<br>400<br>402<br>404<br>406<br>408<br>410<br>412<br>414<br>416               | aagt<br>aaat<br>agct<br>ccag<br>tgtg<br>cctc<br>agag<br>gtct                         | tttgg tatgg gotgg tacat gaago gtcaa gtcac gtcac gctgc tagaa                   | yca figge figger and the second control of t | ttati<br>tgcto<br>actai<br>gtago<br>cgggi<br>cagaa<br>caaco<br>actgo<br>ttggto               | teget<br>ceett<br>tgtgt<br>cetag<br>ttgag<br>cetge<br>gtgag<br>gace                  | to age to to the total to the total to the total to the total tota | ggete<br>cagge<br>actac<br>ttta<br>ttgca<br>gaaga<br>ataae<br>gtgaa<br>gtgaa          | gtgcc<br>ggtcc<br>aggta<br>aggca<br>accca<br>acat<br>gttaa<br>gttaa<br>gcaaa            | c cto c tgt c tgt a gto a gto c tct a gto c ggt a gto c tct a gto c tct a gto c tct       | ggaaa<br>gcaaa<br>gcaaa<br>gtcct<br>ggaag<br>ctaga<br>ctaga<br>ctaga<br>ctaga        | aata<br>igaa<br>igcc<br>itgg<br>igtt<br>igtg<br>igac<br>iaac<br>jagc                 | ctac<br>acti<br>tcat<br>ctct<br>atai<br>acci<br>tgca<br>cage<br>ccte  | caged<br>cggga<br>cgaat<br>ctact<br>ctatt<br>agaat<br>ccaga<br>ggcca                    | cat of a control of the control of t | cctco<br>accca<br>aggtt<br>tgtao<br>tgtao<br>tttao<br>gaato<br>cacta<br>gcttt<br>ataat  | cagggg<br>aagaac<br>ccctgg<br>ggccag<br>gattca<br>agtgcc<br>gcatta<br>aatgca<br>cctggg                     | 120<br>180<br>240<br>300<br>360<br>420<br>480<br>540<br>600<br>660               |
| 398<br>400<br>402<br>404<br>406<br>408<br>410<br>412<br>414<br>416<br>418        | aagt<br>aaat<br>agct<br>ccag<br>tgtg<br>cctc<br>agag<br>gtct<br>taca                 | tttgg tatgg getgg tacat gaago gtcaa getga getga getga agaa aggaa ataaa        | gea fige fige for the second control of the  | ttati<br>tgcto<br>actai<br>gtago<br>cagao<br>caaco<br>actgo<br>ctcao<br>cttggto              | teget<br>teett<br>tetgt<br>tetga<br>tetga<br>cetge<br>gtga<br>gtga<br>cattt<br>actgt | to age to age to the total to the total to the total t | ggete<br>agge<br>actac<br>tttta<br>ttgca<br>gaaga<br>ttaac<br>gtgaa<br>tgaaa<br>tcagc | gtgcc<br>ggtcc<br>aggta<br>accca<br>accat<br>gttaa<br>gttaa<br>gcaaa<br>gcaaa<br>gcaaa  | c cto c tgt c tgg a gto a gg a gg a gto a gt           | ggaaa<br>gcaaa<br>gcaaa<br>gtaaa<br>gaact<br>taact<br>ctaa<br>ctaa                   | aata cgaa cggc ctgg ggtt cgac caac gagc gag  | ctace acti teat acci teat teat teat teat teat teat teat tea   | caged<br>cggga<br>ctggaat<br>cttac<br>ctatt<br>ggaat<br>ccaga<br>ggeca<br>aatc          | cat of a grant of a gr | cctco<br>accca<br>aggtt<br>tgtag<br>tgtag<br>tttaa<br>gaatg<br>cacta<br>gcttt<br>atagtt | cagggg<br>aagaac<br>ccctgg<br>ggccag<br>gattca<br>agtgcc<br>gcatta<br>aatgca<br>cctggg<br>cattga           | 120<br>180<br>240<br>300<br>360<br>420<br>480<br>540<br>600<br>660<br>720        |
| 398<br>400<br>402<br>404<br>406<br>408<br>410<br>412<br>414<br>416<br>418<br>420 | aagti cate aget cete agae gtet taca aaaa ttta  | tttgg<br>tatgg<br>gctgg<br>tacat<br>gaagg<br>gctgg<br>tagaa<br>aggag<br>ataaa | gea fige figer for the second control of the | ttati<br>tgcto<br>actai<br>gtago<br>cagggi<br>cagao<br>cactgo<br>ctcao<br>cttgato<br>cttgato | teget<br>teett<br>teetag<br>tetag<br>tetag<br>eetge<br>ggae<br>gga                   | to age to act to the total to the total to the total t | ggetgaetae<br>actae<br>actae<br>attae<br>gaaga<br>gtgae<br>ggaa<br>agaaa<br>ccage     | gtgcc<br>ggtcc<br>aggta<br>accca<br>accat<br>gttaa<br>actta<br>gcaaa<br>actta<br>tccagt | c ctg c tgt c tgg a ggg a ggg c tct a gta c ggt a gta c ggt a gta c ggt c tct c gac c gtt | ggaaa<br>tcat<br>gcaaa<br>gtcct<br>ggaag<br>ttaga<br>ttag<br>ctago<br>ctago<br>ctago | nata<br>cgaa<br>cggc<br>ctgg<br>ggtt<br>cgac<br>caac<br>gagc<br>gagt<br>ctta<br>ctta | ctace activated | caged<br>caggga<br>ctggaat<br>ctact<br>ctact<br>agaat<br>ccaga<br>ggcca<br>aat<br>cctgg | cat of a grant of a gr | cctco<br>accca<br>aggtt<br>tgtag<br>tttaa<br>gaatg<br>cacta<br>gcttt<br>ataat<br>tttao  | cagggg<br>aagaac<br>ccctgg<br>ggccag<br>gattca<br>agtgcc<br>gcatta<br>actgca<br>cctggg<br>cattga<br>cctctg | 120<br>180<br>240<br>300<br>360<br>420<br>480<br>540<br>600<br>660<br>720<br>780 |
| 398<br>400<br>402<br>404<br>406<br>408<br>410<br>412<br>414<br>416<br>418<br>420 | aagt<br>aaat<br>agct<br>ccag<br>tgtg<br>cctc<br>agag<br>gtct<br>taca<br>aaaa<br>ttta | tttgg<br>tatgg<br>gctgg<br>tacat<br>gaagg<br>gctgg<br>tagaa<br>aggag<br>ataaa | gea fige figer for the second control of the | ttati<br>tgcto<br>actai<br>gtago<br>cagggi<br>cagao<br>cactgo<br>ctcao<br>cttgato<br>cttgato | teget<br>teett<br>teetag<br>tetag<br>tetag<br>eetge<br>ggae<br>gga                   | to age to act to the total to the total to the total t | ggetgaetae<br>actae<br>actae<br>attae<br>gaaga<br>gtgae<br>ggaa<br>agaaa<br>ccage     | gtgcc<br>ggtcc<br>aggta<br>accca<br>accat<br>gttaa<br>actta<br>gcaaa<br>actta<br>tccagt | c ctg c tgt c tgg a ggg a ggg c tct a gta c ggt a gta c ggt a gta c ggt c tct c gac c gtt | ggaaa<br>tcat<br>gcaaa<br>gtcct<br>ggaag<br>ttaga<br>ttag<br>ctago<br>ctago<br>ctago | nata<br>cgaa<br>cggc<br>ctgg<br>ggtt<br>cgac<br>caac<br>gagc<br>gagt<br>ctta<br>ctta | ctace activated | caged<br>caggga<br>ctggaat<br>ctact<br>ctact<br>agaat<br>ccaga<br>ggcca<br>aat<br>cctgg | cat of a grant of a gr | cctco<br>accca<br>aggtt<br>tgtag<br>tttaa<br>gaatg<br>cacta<br>gcttt<br>ataat<br>tttao  | cagggg<br>aagaac<br>ccctgg<br>ggccag<br>gattca<br>agtgcc<br>gcatta<br>aatgca<br>cctggg<br>cattga           | 120<br>180<br>240<br>300<br>360<br>420<br>480<br>540<br>600<br>660<br>720        |

VERIFICATION SUMMARY

DATE: 03/29/2002 TIME: 13:28:16

PATENT APPLICATION: US/09/960,631A

Input Set : A:\266\_171.ST25.txt

| L:147 | M:341 | <b>W</b> : | (46) | "n"   | or | "Xaa" | used, | for | SEQ | ID#:3 |
|-------|-------|------------|------|-------|----|-------|-------|-----|-----|-------|
| L:171 | M:341 | W:         | (46) | "n"   | or | "Xaa" | used, | for | SEQ | ID#:3 |
| L:173 | M:341 | W:         | (46) | "n"   | or | "Xaa" | used, | for | SEQ | ID#:3 |
| L:185 | M:341 | W:         | (46) | " n " | or | "Xaa" | used, | for | SEQ | ID#:3 |
| L:191 | M:341 | W:         | (46) | "n"   | or | "Xaa" | used, | for | SEQ | ID#:3 |